

**Christ Redeemed Me: How Religion and Cognitive Reappraisal in Life Stories Relate to the
Well-Being of Protestant Christian Students**

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Abstract

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A life story represents an integrated and holistic representation of the self that has a past, present and future. Dan P. McAdams has found that particular emotional sequences within episodes of the life story called “redemptive sequences” correlate to various measures of well-being. Scored by a coding schema, these are episodes in which a story goes from negative affect to positive affect, thus redeeming a negative experience. This narrative psychology phenomenon relates to an emotional regulation strategy called cognitive reappraisal, which also correlates with well-being. By engaging with the meaning-making model, religion helps people cope with traumatic events, and is theorized to utilize cognitive reappraisal. Taking the constructs of religion, well-being, and cognitive reappraisal (as operationalized by the narrative measure of redemption sequence scores), this thesis ultimately asks whether or not cognitive reappraisal mediates the relationship between religion and well-being.

The thesis includes a study of Protestant Christian university students ($n = 26$), which replicates the study by McAdams with an added measurement of religiosity and Christian conservatism. The study offers an attempted replication of findings of various studies by McAdams et al. (2001), Ferriss (2002), Ellison (1991), and Vishkin et al. (2016). In addition, the study offers pilot work for using narrative psychological measures for a more objective approach to measuring cognitive reappraisal. It was hypothesized that religiosity and Christian conservatism would both positively correlate with redemption sequence and with two measures of well-being (SWLS and Ryff’s scales of psychological well-being). These various correlations would then be analyzed by partial correlations and multiple regression analysis to explore among constructs for a potential mediation of cognitive reappraisal for the positive correlation between religion and well-being. Resulting correlations were mostly inconclusive. However statistically significant correlations were found in two relationships: between redemption sequences and both measures of well-being, and between belief in Bible inerrancy and SWLS.

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Introduction

The death and resurrection of Jesus Christ illustrates a redemption story in which a deeply negative event is “redeemed” by a positive outcome. Jesus was tortured, demoralized, rejected by his followers, and then brutally and publically crucified, enduring some of the worst that the human experience has to offer. Yet, despite the darkness of suffering and death, he resurrected to eventually rise up into heaven. This story of redemption, in theme and in belief, sparked the beginning of a faith system that would go on to provide meaning for billions of followers for thousands of years. Even beyond believing in Jesus Christ, Christians believe in the redemptive story: to see wrongs righted; to see an underdog triumph against all odds; and to see the deliverance of a people from desolation into a promised land of human flourishing.

There exists a similar overarching optimism in the American spirit, traceable to Christian roots at the founding of the British colonies. As some of the first and certainly influential settlers, the Puritans had an individual theological need to prove their salvation, to demonstrate to the community that God had overcome their sinful nature and made them good and pure. This communal belief in spiritual deliverance from persecution brought by evil eventually carried them to America. Then, in their physical promised land, they formed a narrative foundation that inspired future Americans to overcome obstacles, gain prosperity, and seek moral righteousness (McAdams, 2006). Indeed, this redemptive spirit has been coined as the American Dream.

Popularly defined by James Truslow Adams (1931) where a life in America is “better and richer and fuller for every man, with opportunity for each according to his ability or achievement,” the American Dream requires an understanding that life at the moment is not as good as it could be and that America will provide the deliverance into prosperity (p. 214). Today, immigrants and citizens alike seek the coveted American Dream as a hope for a social and

economic reward for doing hard work and enduring difficult times. This same redemptive spirit has energized the field of psychology ever since Martin Seligman urged the American Psychological Association to turn attention towards human flourishing and create the field of positive psychology (Fowler, Seligman, Koocher, 1998). Since then, thousands of studies have sought to determine correlates for higher levels of happiness and well-being. Truly, the redemptive story permeates American society.

One way to encounter the redemptive story is to hear the stories that one tells about one's life, particularly listening for how bad events can bear good fruit that push one forward into some brighter future. In recounting a life story, one must choose scenes in one's life that are representative of key aspects of the self, a curation process that demands a global integration of experiences, beliefs, and values. Thus, beliefs that emphasize redemption can play a large role in what kinds of scenes are told. This is relevant in Christianity where testimonial conversion stories—as a tool for proselytizing—mirror and concentrate on the redemptive story at the cornerstone of the religion: the resurrection of Jesus.

As a dominant cultural and social force, religion is an important domain for psychological research, particularly for its connection to well-being. Research has shown that religious people tend to have higher scores on assessments of well-being and happiness (Berthold et al., 2014; Ellison, 1991; Ferriss, 2002; Lim, 2015). An adequate explanation of the connection between religion and well-being remains elusive due to the complexity of the relationship. The constructs of religion and well-being are broad and, as such, contain many factors within them that all interact within and between these constructs. Some research seeks to find factors within a construct to deconstruct its parts that relate to well-being. Other research explores mediating factors that help to explain the connection between two variables.

Some mediating factors have been determined, such as positive emotions (Van Cappellen, Toth-Gauthier, Saroglou & Fredrickson, 2016); social support and a feeling of respect (Diener, Tay & Myers, 2011); and meaning in life and hope (Chamberlain & Zika, 1992; Wnuk & Marcinkowski, 2014). Another potential mediator is the emotional regulation strategy of cognitive reappraisal in which, in order to manage one's emotions, a stressful event is reinterpreted either as less negative or potentially positive or meaningful. It is theorized that religion leverages this capacity to positively reframe memories by utilizing it as part of a meaning-making system through a theodicy (a framework for understanding suffering).

Cognitive reappraisal parallels the narrative psychological theme of redemption. Thus, the two ideas may be connected to open up a new way to study cognitive reappraisal as a potential mediating factor between religion and well-being. Thus, the current thesis seeks to understand how redemptive cognitive reappraisal of life events might mediate the connection between religion and well-being. This is supposed because religion interacts with cognitive processes by aiding in event reappraisal, according to the Meaning Making Model (Park & Folkman, 1997).

In an examination of life stories (procured series of narratives from a section of the Life Story Interview), McAdams, Reynolds, Lewis, Patten & Bowman (2001) identified particular emotional sequences called "redemptive sequences" in which a story moves from negative affect to positive affect, thereby "redeeming" a negative experience. They found that the number of redemptive sequences in a life story correlated with various measures of well-being. If we take this measure of redemptive sequences as a proxy measurement of cognitive reappraisal, how might cognitive reappraisal mediate the association between religiosity and well-being? And,

given that Christian conservatism is positively associated with relatively well-being, how might cognitive reappraisal mediate this relationship?

The present study adds to the burgeoning research around the connection between religion and well-being by replicating the procedure of the study by McAdams and his team with an added measurement of religiosity and Christian conservatism. It is hypothesized that religiosity and Christian conservatism will be positively correlated with both cognitive reappraisal (as operationalized by the narrative measure of redemption sequence scores) and two measures of well-being, the Satisfaction with Life Scale (SWLS) and Ryff's Scales of Psychological Well-Being. It is theorized that religion engages cognitive reappraisal through the meaning-making system, and that this will be bolstered in those who have higher levels of religiosity (religious behaviors indicating influence of religion in life) and greater Christian conservatism (more dramatic theology of redemption).

Only Protestant Christians (including, but not limited to, Methodist, Baptist, Episcopalian, Lutheran, or Presbyterian) were asked to participate in order to centralize the focus on doctrinal differences on a spectrum from liberal to conservative (today, typically categorized between mainline and evangelical brands, respectively). Beliefs of the Catholic Church diverge into a different plane from Protestant doctrines, and are thus too heterogeneous to compare with Protestant Christians. The study excluded other faiths and non-faiths for a similar desire to focus on doctrine and religiosity within a group. As a result, this thesis will not study the strict correlation of religion with well-being; instead, it will discuss how variation exists within Protestant Christianity.

Literature Review

Two Types of Well-Being

Within the field of psychology, well-being covers many ideas from subjective feelings of happiness to objective realities of physical, mental, and emotional health. Well-being can be divided into two types: hedonic and eudaimonic (Ryan & Deci, 2001).

Hedonic well-being refers primarily to happiness, being the maximization of positive feelings (pleasure) and the minimization of negative feelings (pain). Hedonic well-being comes from the ethics of hedonism—such as that espoused by Epicurus, Aristippus of Cyrene, or even utilitarian Jeremy Bentham—in which “only pleasure has worth or value and only pain or displeasure has disvalue or the opposite of worth” (Moore, 2013). Regardless of its origins, hedonic well-being focuses on the subjective experience of happiness as the metric. Thus, Ryan and Deci explain that hedonic well-being is typically studied through Subjective Well-Being (SWB), operationally defined as satisfaction with life, positive affect, and the absence of negative affect. Typical measurements tools for this include (but not limited to) the Satisfaction with Life Scale (Diener, Emmons, Larsen & Griffin, 1985) and Positive and Negative Affect Scales (Watson, Clark & Tellegen, 1988).

In contrast to hedonic well-being, eudaimonic well-being is more holistic, covering both happiness and meaning; this is sometimes referred to as psychological well-being due to its play on multiple facets. Waterman (1993) drew a particular distinction between hedonic enjoyment of life and eudaimonic well-being as related but qualitatively different experiences. *Eudaimonia* is the Greek word for happiness, yet when Aristotle used it, he meant more specifically *human flourishing*. Rejecting the pure subjective experiences of pleasure as the goal of life, Aristotle determined that the activation of virtues makes a good life. In other words, eudaimonia is having

“what is *worth* desiring and worth having in life” as opposed to simply feeling pleased in one’s life (Telfer, 1980, p. 37).

In psychology, eudaimonic well-being has been characterized as a mixture of both pleasure and meaning, making it a more holistic picture of what it means to be living a good life. However, conceptualizations of eudaimonic well-being are scattered and there is a deep lack of consensus among researches on how to measure it (Haybron, 2016). Thus, in research, it is likely to come across measurements of psychological well-being. In an attempt to have this broader understanding of well-being, Ryff theorized Psychological Well-Being (PWB) as a field of research that is supplementary to Subjective Well-Being (1989). Ryff claims that, since positive affect and negative affect have different correlates, they are not necessarily bound together and are thereby not a great barometer for happiness. Instead, she argues that positive psychological functioning ought to be the primary metric by which well-being should be measured, not simply the combination of positive and negative affect. Ryff’s Scales for Psychological Well-Being offers six domains for measuring outcomes related to PWB: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance (Ryff, 1989). High overall scores indicate high eudaimonic well-being in which that a person feels they are living a meaningful and pleasurable life.

The distinction between hedonic and eudaimonic well-being is an important one because the correlates of each are different. Some antecedents to high levels of hedonic well-being include satisfaction of basic needs, having money, and having successful relationships and not being lonely (Ryan & Deci, 2001). Religious affiliation and religiosity have been linked to higher scores on the Satisfaction with Life Scale (Berthold et al., 2014). In addition, studies have

found correlations between religiosity and spirituality with both hedonic and eudaimonic well-being (Joshani, 2010).

Religion and Well-Being

Religion continues to play a large role in the private lives of many individuals in the United States. While in 2014 the number of people who no longer affiliated with religion rose sharply (up 6% for the general U.S. population in just 7 years from 16% to 22%), the percentage of Americans that are affiliated with a religion remained high at 71% (Pew Research Center, 2014). Thus, it is clear that religion remains an important part of the lives of most Americans. Hence, the psychological study of religion is important for the improvement of mental health.

There are many clear benefits that religion provides a person. By its nature of bringing people together and encouraging social bonding, religion offers social support (Pargament, 1997) as well as support for marital relationships and families (Holt, 1958). Cognitively, religious belief systems also instill a sense of control through supernaturalism as a last resort when one can no longer sustain secular control efforts (Gibbs, 1994) and through a belief that God is in control (Welton, Adkins, Ingle & Dixon, 1996). In addition, religion can have mental health benefits through coping strategies and spiritual practices such as prayer (Pargament, 1997).

Considering all of these benefits, it is no surprise that religion has been linked to both physical and mental health. In order to research why this might be the case, religion is typically broken down into factors to better understand these associations. In psychology, research has found that certain aspects of religion—such as religiosity and doctrinal preference (such as religious conservatism)—are related to well-being.

Religiosity is defined as a measurement of religious involvement, such as how often a person prays and attends religious services, and how much they value their religion. This

construct is most commonly measured because it is fairly easy to report and measure as well as having a well-established moderate correlation. Religiosity has generally been linked to longevity. A study done by Hummer, Rogers, Nam, and Ellison (1999) analyzed data from the National Health Interview Survey ($n = 22,080$) and followed up over the next 8 years to see how many had died to see what factors related to mortality. The study found that those who regularly attended religious services were 1.86 times less likely to die as those who did not regularly attend. In regards to well-being, a study by Ellison (1991) looked at General Social Survey data from 1988 ($n = 998$) and found that life satisfaction was associated with church attendance ($r = .14$) and divine interaction, which measured closeness to God and prayer frequency ($r = .09$), accounting for around 5% of the variance of life satisfaction by multiple regression. In general, religiosity has been linked to well-being with statistically significant weak correlations (average correlation around .15), as evidenced in systematic research reviews (Wilson, 1967; Koenig, McCullough & Larson, 2001) and large national sample studies (Berthold & Ruch, 2014; Lim, 2015). Thus, religiosity has empirically-established associations to both physical and mental health.

In regards to variations of well-being according to religious beliefs, a study by Ferriss (2002) analyzed data from 14 years of the General Social Survey Cumulative File ($n = 34,706$) to find correlates between religious factors (like denominational preference, doctrinal preference, and religious involvement) and self-report happiness measures (between “not too happy,” “pretty happy,” and “very happy”). The biggest differences are quickly found between those who are religious and those who are not, where those without a religion had decisively lower happiness ratings than their religious counterparts. Doctrinal preference had larger differences between each variable than did denominational preference. For those stating that they were “very happy,”

evangelicals reported at 41%, fundamentalists at 36%, and mainline protestants at 31%. Ferriss suggests that this difference could be accounted for by the character of the groups in which evangelicals are typically enthusiastic with “zeal for extending their faith” (p. 211) and fundamentalists have certainty. Similar relationships have been replicated by Green and Elliott (2010), finding that people with fundamentalist beliefs are happier than people with more liberal beliefs. Since religiosity and conservatism have been shown to be moderately and positively correlated (Hirsh, Walberg & Peterson, 2013), it makes sense that both would correlate with well-being.

It should be noted that while religion has been connected to well-being, there are also drawbacks that link religion to the opposite. Koenig, McCullough, & Larson (2001) identified various harmful associations between religion and well-being: in committing an act that is deemed morally wrong by the religion, there were higher levels of guilt, shame, helplessness, and depression; religion exacerbated distress in family crises; and rationalizing and sanctioning hatred, violence, and prejudice, to name a few.

Still, religion is correlated with general improvements in well-being. However, the relationship is not fully understood. To further understand the relationship between religion and well-being, various mediating factors have been researched: positive emotions (Van Cappellen, Toth-Gauthier, Saroglou & Fredrickson, 2016); a feeling of respect and social support (Diener, Tay & Myers, 2011); and hope and meaning in life (Chamberlain & Zika, 1992; Wnuk & Marcinkowski, 2014). The investigation presented in this thesis seeks to understand cognitive reappraisal as a potential mediating factor. Before discussing this, an important aspect of religion that needs to be explored is the key role that religion can play in coping and making meaning.

Religion, Coping and Meaning-Making

Religion has been chided by popular criticisms, such as Karl Marx calling it the “opium of the masses” (1844/1970) and Sigmund Freud (1930/2010) claiming it is an illusion to distract from the harsh randomness of the world. However, these criticisms speak to the healing power that religion can give people. A religion’s belief system and practices work together in coping.

In regards to social structure, religions provide supportive communities that can help people emotionally and materially in times of distress. Indeed, religion has been seen as a protective factor for helping children cope with adversity (Masten, Best, Garmezy, 1990). Additionally, coping through religion is central to research done by Kenneth Pargament. In theorizing religious coping, Pargament (1997) claims that religion plays both a passive and active role in the coping process. In fact, he postulates their definitions as almost overlapping, in which religion is “a search for significance in ways related to the sacred” (p. 32) while coping is “a search for significance in times of stress” (p.90). In times of distress, religion’s capacity for providing meaning to life experiences is well-aligned with the goal of coping. This also affords a person some sense of control in their life, aided by actions like prayers and rituals (Hood, Hill, Spilka, 2009).

Another way that religion acts to improve adjustment is in offering an accessible orientation system that aids in the coping process. Pargament (1997) describes the orientation system as an individual’s “general way of viewing and dealing with the world” (p. 99). Religion has a “one-stop-shop” of values, practices, and beliefs that can structure one’s orientation system in a cohesive and easy manner. Thus, when someone experiences a negative event or trauma, the orientation system goes to work to try and make sense of this event in terms of one’s own values, practices, and beliefs.

A more comprehensive understanding of the cognitive pathway for coping can be found in the Meaning Making Model (Park & Folkman, 1997). This theoretical framework is a synthesis of several theories on meaning in order to provide a model for researching how meaning-making helps in coping with life stressors. The Model differentiates between *global* and *situational meaning*. Global meaning is one's orientation system to make sense of stressful life events, consisting of global beliefs, goals, and expectations about the world. Religion is a "prime example of a belief system that provides a way to understand suffering and loss" (p. 121). Situational meaning is the meaning of specific events, which is a combination of the initial appraisals of an event and the revisions made to these appraisals and global meaning.

The Meaning Making Model presents a conceptual cognitive pathway for the making of meaning when a stressful event occurs within the idea of situational meaning. First, there is an appraisal of the event within the context of one's orientation system. This consists of a primary appraisal—to see if the event is a challenge (conquerable) or a threat to one's global meaning—and a secondary appraisal to see what actions can be done. If this initial appraisal of a stressful event is congruent with one's global meaning, then the person acts according to the secondary appraisal and the event is no longer stressful. However, if the initial appraisal is discrepant with one's global meaning, then the person experiences distress with which to cope, and there ensues a search for meaning. The search for meaning can utilize any combination of three coping strategies: problem-focused coping, emotion-focused coping, and reappraisal of meaning. In the latter, the initial appraisal and global meaning are challenged, demanding that either the global meaning change (new global beliefs or goals) or the appraisal of the event change (reappraising the trauma to be less damaging or possibly even helpful). Once there is a satisfactory change, it

is said that meaning is made, either by understanding the stressful event in a new way or having a change to one's global beliefs.

The meaning-making process is for decidedly negative experiences, not ones simply characterized by mild negative affect. To illustrate the two options for meaning-making, I will explore the possible meanings made from the loss of a loved one. If this were my first loss, I would be devastated and appraise the event as deeply confusing in my world view. If I am religious, the search for meaning could deal with reappraising the situation or my global beliefs. So, in order to cope with the stress, I could reappraise the situation by viewing the loss as a somber opportunity for my loved one to go to heaven. Or, I could reappraise and change my global beliefs and believe that God is not real and throw away my religion. This latter example of apostasy, while real, is very unlikely because religious beliefs are usually very deeply held and a change would be difficult.

In addition to being deeply held by emotions and socialization, religions also offer logical arguments in the form of theodicies to make sense of suffering, therefore aiding in reappraising stressful events and protecting the religious belief system. A theodicy, according to Alvin Plantinga (1977), is an "answer to the question why God permits evil" (p. 10). More specifically, a theodicy is a logically coherent and moral explanation for why suffering exists when there is an omnipotent (all-powerful) and omniscient (all-knowing) God. The *Stanford Encyclopedia of Philosophy* identifies five major theological theodicies dealing with the problem of evil, including the "Soul-Making Theodicy" in which suffering is a part of God's plan for one's personal growth and sanctification (Tooley, 2015).

As another view, in response to modern life and increasing rationality through education, Max Weber considered theodicy as a sociological reaction by religion to make sense of the

apparent inconsistency of ancient religious beliefs and the suffering and randomness of modern life (1946). Weber identified three main types of theodicy found in world religions: predestination (primarily found in Reformed Christianity), dualism (found in Zoroastrianism), and karma (found in Hinduism). Any of these theodicies could be found in a person's global beliefs; and as such, religious beliefs about suffering will help to inform how to make sense of stressful situations. In fact, Pargament, Poloma, and Tarakeshwar (2001) identify coping strategies reminiscent of theodicies, several of them dealing with appraisals of some kind to make sense of the stressful event. These include the punishing God appraisal (suffering as deserved), demonic reappraisal (suffering is caused by a demon), reappraisal of God's power (suffering is ultimately no match for God), and benevolent religious reappraisal (suffering as a challenge to grow spiritually).

Religion offers distinct help in the realm of coping through meaning making. An important facet of this phenomenon is the reappraisal of stressful events through theodicies and strategies.

Cognitive Reappraisal and Related Concepts

In the Meaning Making Model, the coping strategy of reappraising situational and global meanings goes by other names, such as cognitive reappraisal, cognitive restructuring in Cognitive-Behavioral Therapy, event construal, and benefit-finding. While these constructs certainly have their distinct definitions, there is major overlap in the process they describe. Thus, for this paper, cognitive reappraisal will be the name to encapsulate this cognitive mechanism that can be utilized to reappraise past events and find meaning or positivity. This construct is linked to both religion and well-being.

Cognitive reappraisal has been coined an emotional regulation strategy. Emotional regulation “refers to the processes by which individuals influence which emotions they have, when they have them, and how they experience and express these emotions” (Gross, 1998, p. 275). Thus, cognitive reappraisal is one of five strategies to manage emotions. The others are situation selection (avoiding settings, people, or objects), situation modification (actively changing the situation to remove or deflect the stressor), attentional deployment (distraction from or rumination on stressful event), and response modulation (directly engaging physiology to relieve stress, such as through drugs or exercise) (Gross, 1998). Cognitive reappraisal can involve minimizing the negativity of a situation—through denial, isolation, or intellectualization—or it can reframe the situation in a positive light. This is the same mechanism described in meaning making, and it is found in other areas of psychology.

Similar to cognitive reappraisal, cognitive restructuring is used by clinical psychologists for Cognitive Behavioral Therapy (CBT). Developed to treat depression, CBT seeks to confront and change deep-seated negative patterns of thinking. As such, one of the main methods of CBT is cognitive restructuring in which the therapist and client work to test the validity of maladaptive thoughts and find a way to think of them differently (Kyrios, 2002). Thus, CBT helps a client work through maladaptive cognitive styles. In fact, CBT is an empirically-validated treatment for many mental disorders, such as depression and anxiety, revealing a healing power of cognitive reappraisal.

Indeed, cognitive reappraisal is linked to psychological well-being (Gross & John, 2003). In a cognitive approach to happiness, Lyubomirsky (2001) claims that happiness and unhappiness are determined by mostly cognitive and motivational processes. In her *Construal Approach to Happiness*, Lyubomirsky identifies four cognitive styles that show individual

differences in well-being. The two styles that are negatively correlated to well-being are social comparison and self-reflection (or rumination). The two styles that are linked to greater happiness are postdecisional rationalization (choosing to be satisfied with one's decisions) and event construal (thinking about past events more favorably and more adaptively), which is similar to cognitive reappraisal. A phenomenon identical to event construal is known as benefit-finding, and it has also been linked to both mental and physical health benefits (McAdams, 2006).

As cognitive reappraisal is linked to well-being, it should also be connected to religion in the Meaning Making Model because they can appear to work together, if not as one. Vishkin et al. (2016) performed a series of studies to find out if religiosity was related to cognitive reappraisal. In the first study, they surveyed across three populations ($n = 665$) to gather scores on religiosity as well as a self-report measure of cognitive reappraisal using the Emotional Regulation Questionnaire (ERQ; Gross & John, 2003) to assess frequency of use of cognitive reappraisal. This study found statistically significant correlations between religiosity and frequency of cognitive reappraisal ($r = .16$). Then in two other laboratory experiments where the participants watched a negative affect-inducing clip and then were instructed to utilize cognitive reappraisal (after psychoeducation on how to do it), it was found that those that were more religious were also more effective at cognitive reappraisal (as operationalized by a self-report measure of affect after using the strategy). While cognitive reappraisal has been studied with religiosity, there is no research that studies it with doctrinal preference.

Thus, since cognitive reappraisal is linked to both religion and well-being, it is possible that cognitive reappraisal plays a role in mediating the statistical relationship between religion and well-being. As a component of the meaning-making model, cognitive reappraisal could be a

third variable that is a solely cognitive mechanism that religion uses to increase well-being. It is also possible that cognitive reappraisal is a key factor of well-being, and as such it naturally will correlate with religion. If it is a function of religion, then cognitive reappraisal would be expected to differ in its connection to religiosity and doctrinal preference. While the associations among these three variables have mostly been seen, there remains to be research studying the connection among these three variables altogether.

In determining how to study this, another field of psychology offers a potentially new way to measure cognitive reappraisal. Since how we construe past events has psychological consequences, it makes sense that we can look into an area of life in which we must think deeply about our lives: telling life stories.

The Life Story and Redemption

Telling a narrative account of one's life is an ongoing construction project that is interactionist, being both social and highly personal. As one gathers life experiences and perspectives, one seeks to make a cohesive and comprehensive meaning through telling stories about one's life, thinking about others' perspectives, and revising their accounts to take in new experiences (Bauer, McAdams & Pals, 2008). Life stories have the typical features of stories, having a plot with or without drama, situational and overarching themes, and characters, with the narrator as the protagonist of his or her own life.

Dan P. McAdams studies life stories and has done research in various areas on this subject. He has expanded the field of "narrative psychology" in which elements of development, personality, and identity formation are studied within the context of the life story. McAdams elaborates a theory of life story development and personality in his book *The Stories We Live By* (1993).

In addition to an explanation of the life story, the book contains information on how McAdams and his team have gone about collecting narrative data. In order to have this narrative data, McAdams developed what he calls the Life Story Interview. This interview typically takes up to 3 hours, guided by the researcher to help with extracting a comprehensive life story. The interview begins by asking the participant (interviewee) to imagine that his life is a book and delineate what the broad chapters would be in his life story. Then, the interviewer asks the participant to describe 8 key life events that range from earliest childhood memory to the best and worst moments of the participant's life. The interview continues with the participant designating the significant people in their life, a future script, the conflicts of the life story (stresses and problems), personal ideology (beliefs and values), and finally designating a major life theme.

One facet of this research that has received much attention by McAdams and other narrative psychology researcher is that of themes. Themes are considered the motivations for the protagonist. McAdams highlights that agency and communion are core themes in life stories (1993). Agency refers to a desire for power or achievement, which can be revealed in narratives as dominant behavior, agentic beliefs (valuing courage or individualism), and self-attributions of agency (such as describing oneself as achieving or disciplined). Communion refers to the desire for love and intimacy, which could manifest itself as friendly behavior, communal values (like world peace), and self-attributions of communal properties (such as describing oneself as compassionate and responsible). While these themes are associated mainly with static content of the life story (the parts of one's life that remain constant, such as core values and key relationships like family), dynamic content (the parts of one's life that change, such as decisions

and events that make the protagonist grow) is better understood through temporally sensitive narrative features, like emotional sequences (Bauer et al., 2008).

When analyzing a life story account, a researcher may code for emotional sequences that show a definitive change between an incident and the subsequent outcomes. Emotional sequences can be divided into two types: redemption and contamination. In a redemption sequence, a life event that is particularly negative (gauged by one's emotion during the event) is somehow redeemed by a positive outcome. For example, someone who fails a big test may take this as an opportunity to invest more time in school, yielding better grades and greater life satisfaction. The opposite of this is a contamination sequence in which a positive event becomes negative by its outcome. For example, someone who is an effective student in high school with a perfect GPA may come to college to find his confidence deflated by the difficulty of the classes, allowing his grades to fall through the cracks.

The theme of redemption has inspired much research and even a book by McAdams called *The Redemptive Self: Stories Americans Live By* (2006). In this book, McAdams elaborates on the psychological and historical power of redemption, particularly in American society. To illustrate the prominence and diversity of this theme, he identifies "Six Languages of Redemption" as a set of common stories and ideas that are found throughout stories: atonement, emancipation, upward mobility, recovery, enlightenment, and development. Thus, one questions how the psychological component of redemption has particular consequence for the research of well-being.

The theme of redemption finds itself already underlying mental health predictors such as benefit-finding and post-traumatic growth in which negative stressful events are combatted with cognitive processes to create positive outcomes. As such, the life story has similar relation to

these meaning making reactions to stress and its consequences. There is a reliable connection between these redemptive sequences in life stories and well-being (Bauer et al., 2008).

A study by McAdams, Reynolds, Lewis, Patten, & Bowman (2001) investigated how redemption sequences in life narratives of adults and college students were related to measures of life satisfaction and PWB. These redemption sequences were scored by giving a point for a narrative that moved from a negative scene (i.e. loss of a loved one) with markedly negative affect (i.e. anxiety, anger, sorrow, depression) to a positive scene with either positive affect (i.e. joy) or enhanced self-insight (i.e. learning about one's values or purpose in life). This was the main criteria for the redemption point because the narrative is what is being scored, not the reader's idea of the memory being recalled. Additional points were also awarded for enhanced agency (self-insight or personal growth), enhanced communion (growth in relationships), and contact with ultimate concerns (dealing directly with death or deep spirituality). They found that redemption sequences were moderately correlated with scores of life satisfaction ($r = +.42, p < .001$) and with scores of PWB ($r = +.35, p < .001$). These findings are supported by parallel research done by Adler and Poulin (2009) with 9/11 first-responders, with adults in a longitudinal study (Adler et al., 2015), and with young women in Taiwan (Liao, Bluck & Cheng, 2015). Indeed, redemption sequences are linked to well-being.

However, no research seems to have been done to see how redemption sequences may also be associated with religion. This is surprising because there is an obvious link between religion and redemption. As discussed in the Introduction, Christianity is founded upon a redemption story where the founder of the faith died and then was resurrected, thereby conquering death and eventually raising to heaven; a story going from the lowest low to an unbelievable high. According to McAdams (2006), the theme of redemption can be found "in all

the world's major religions and many cultural traditions" (p. 7). Additionally, in Christianity, the "testimony" is a conversion story to be told in efforts of sharing the message of Christianity. Most conversion stories, by definition, are redemptive because the format begins with life before faith, which is typically negative, and ends with life with faith, which is typically very positive or meaningful. Thus, there are many areas of research for how religion might relate to redemption sequences.

Ultimately, the dynamism of these redemption sequences is similar to the strategy of cognitive reappraisal as seen in the Meaning Making Model. In fact, the cognitive processes that occur in order to produce a life story are similar to those in cognitive reappraisal. Thus, the redemption sequence is potentially a way for expressing cognitive reappraisal, especially as it relates to benefit-finding and event construal. This expression of the multitude of appraisals and reappraisals as a part of telling a life story makes narrative research methods an opportunity to more objectively observe cognitive reappraisal. Thus, there was conducted a study as a way to pilot this different approach to measuring cognitive reappraisal and to explore a possible mediation of cognitive reappraisal in the relationship between religion and well-being.

The Present Investigation

The current study sought to explore cognitive reappraisal of life events as a mediating factor for the relationship between religion and well-being by using a narrative approach. In order to consider a possible mediation, correlations were established among the three constructs according to the theoretical model: cognitive reappraisal, religion, and well-being (see Figure 1). The current investigation of the interplay between religion and well-being differs from previous work by utilizing narrative psychology methods to measure cognitive reappraisal in a more objective way. By applying the methods of McAdams et al. (2001) for redemption sequence

coding of life stories, the written accounts represented a way to measure reappraisals of life events in which stressful or traumatic situations became reframed in a positive light, either by positive affect or by increased insight. This method contrasted with the self-report scales of cognitive reappraisal, such as the Emotional Regulation Questionnaire (Gross & John, 2003). By not directly asking participants to report on their own emotional regulation strategies of which they may or may not be fully aware, the redemption coding of life stories offered an objective measurement of how often cognitive reappraisal was actually used by the participant. Thus, it was theorized that by using candid accounts of life story scenes, a more objective account of cognitive processes would have been available for measurement.

The theoretical model was operationalized by using religiosity and Christian conservatism measures for religion, satisfaction with life (subjective well-being) and psychological well-being measures for well-being, and a redemption sequence score for cognitive reappraisal (see Figure 2). While past research had found correlations among religion, well-being, and cognitive reappraisal, this study sought to expand upon the literature and explore a possible mediator among these three variables. There were three sets of hypotheses tested in the present investigation with a sample of Protestant Christian undergraduate students to determine a possible mediation of cognitive reappraisal (operationalized by redemption sequences) in the association between religion and well-being.

Since the population was limited to only Protestant Christians, doctrinal preference was operationalized in a more nuanced way along the spectrum of beliefs within Protestant Christianity. While doctrinal preference is still the construct, it was measured as a degree of Christian conservatism in order to have nominal data for data analysis. This is in lieu of Ferriss's

(2002) distinctions of fundamentalist, evangelical, mainline protestant, and liberal (in order of decreasing Christian conservatism).

Hypothesis 1. A replication of correlations was fundamental for a potential mediation analysis to proceed. It was expected that religion and well-being would correlate. The hypotheses go as such:

1A. I expected that religiosity and both measures of well-being would be positively correlated. This would replicate previous findings by Ellison (1991) and other work that have seen this relationship.

1B. I expected that Christian conservatism and Bible inerrancy (a particularly conservative view of the Bible in that it has no errors and is the direct word of God) would positively correlate with both measures of well-being. This would replicate findings by Ferriss (2002). 1A and 1B would establish the first major correlation between religion and well-being in the theoretical model.

1C. I expected that redemption sequences would positively correlate with both measures of well-being, thereby replicating the findings of McAdams et al. (2001). This would establish the second major correlation between cognitive reappraisal and well-being.

1D. I expected that religiosity would positively correlate with redemption sequences. This would replicate findings by Vishkin et al. (2016), and it would make up part of the final major correlation in Figure 2.

Hypothesis 2. I hypothesized that Christian conservatism would also be positively correlated with redemption sequences. An illustration of Hypotheses 1 and 2 may be found in Figure 3 to better understand the many relationships being studied.

Hypothesis 3. If all of the major correlations among the three constructs were found, a mediation analysis would be performed. Figure 4 illustrates the mediation model for this hypothesis.

3A. I hypothesized that, when controlling for redemption sequences for the partial correlations between both religious variables and well-being measures, the correlation values would drop significantly relative to full correlations.

3B. I expected that redemption sequences would also account for a significant portion of the variation in a multiple regression with religion measures and redemption sequences predicting both measures of well-being.

If all three hypotheses are supported, then it would provide evidence for cognitive reappraisal as a potential mediator in the relationship between religion and well-being. While this research provides no evidence of causation or functionality, it seeks to provide an empirical basis for future research into how cognitive reappraisal functions within this association, either as a third variable that influences both or as a factor within religion or well-being that affects the other.

Methods

Participants

Undergraduate students from the University of Texas at Austin were sampled for the investigation ($n = 26$). Age, race, and gender were not included in the data collected, although the typical age range of the populations studied is between 18 and 23. Students were recruited from two populations: from the introductory psychology course (Psychology 301) through the Sona server (an online experiment and registration system through the university's psychology department that tracks student participation in psychology studies to compensate them with

course credit) and from Christian organizations on campus (the Texas Wesley Foundation, the Baptist Student Ministry, and Sigma Phi Lambda sorority) via social media solicitation. Students enrolled in psychology courses received course credit for participation while the other students were not compensated. Data from both groups were analyzed together.

All participants identified as Protestant Christians. Only Protestant Christians were studied so that within-group differences would be found along dimensions of religiosity and Christian conservatism. By including Catholic or Orthodox Christians, some of the major belief distinctions that are found within Protestant Christianity would have been blurred, potentially confounding the results of the study. In addition, non-Christians—such as persons identified as other religions, agnostic, atheist, or unaffiliated—were not included so as to focus on particular beliefs and practices within Christianity to focus the results of the study.

Procedure

Participants completed an online survey through Qualtrics (survey program provided by the University), and accessed via Sona Systems or by emailed hyperlink to participants. These surveys were taken at the participants' leisure wherever they had internet access. Data on the duration of each response suggests that some participants did the survey quickly (the shortest taking 30 minutes) while others took several days from opening the survey in order to complete it (the longest taking 6.2 days).

The survey began with a screening question to ensure that the participant attested to identifying with a Protestant Christian faith, followed by the informed consent page. Then the study began with a section from the Life Story Interview (McAdams 1993, Appendix A) in which the participant was asked to recount 10 life scenes (high point, low point, turning point, positive and negative childhood memories, episode of continuity, morality scene,

religious/spiritual/mystical experience, decision-making scene, and goal scene). When writing these scenes, the participant was prompted to describe the scene in detail while elaborating on their thoughts and feelings in the moment and how this scene was important in their life. All responses were requested to be at least 500 characters in length (roughly 120 words) in order to have sufficient material to score for a redemption sequence.

The Life Story section was followed by an 82-item questionnaire that contained questions from various scales. These included the *Santa Clara Strength of Religious Faith Questionnaire*, the *Christian Conservatism Scale*, *Christian Liberalism Scale*, the *Satisfaction with Life Survey* and the *Ryff's Scales of Psychological Well-Being Questionnaire*. The final question was a sliding scale question marking one's personal religious affiliation from liberal to conservative. The sequence of the survey was the same for all participants.

For Psychology 301 students, the survey was followed by a debriefing statement to explain the purpose, design, and theory behind the study. This was required by the Department of Psychology for research with Psychology 301 students.

Measures

Redemption sequence score. In the Life Story Interview portion of the study (the participant is asked to recount 10 scenes from their life), the text of the responses was analyzed for redemptive sequences in which there was a transformation from a particularly negative-affect state to a particularly positive-affect state. This technique was used in the study by McAdams, Reynolds, Lewis, Patten and Bowman (2001) and provides a model for the present study. Inter-rater reliability for the measure was calculated through inter-rater agreement and Cohen's kappa. The inter-rater agreement was found to be slightly over 90% for two scorers. Cohen's kappa was

calculated, revealing a moderate agreement when taking chance into account ($\kappa = .56, p < 0.001$).

To determine a score for a redemption sequence, each life scene was examined individually for its own score. When describing the scene, there must be clear evidence of a “redemptive move” in which the narrator (participant) was in a negative state and then it must either (a) have altered decidedly into a positive state or (b) have produced a positive outcome. If the scene contained either or both of these two criteria, it received 1 point for redemptive imagery (called simply “imagery” in the results section). Thereafter, the scene acquired additional points by containing supplementary themes (1 point per theme). These were enhanced agency (personal growth), enhanced communion (relationship growth), and regards to ultimate concerns (spiritual growth). Each scene was coded from 0 to 4 points and this was its redemption sequence score. A “4” indicates a strong redemption sequence and a “0” indicates no redemption sequence. A total redemption sequence score was determined by summing all redemption sequence scores from the 10 life story scenes.

To illustrate this coding schema, let’s look at an example from the survey responses. One participant wrote that she was diagnosed with a gastro-vascular disorder that barred her from participating in her normal activities, which implied negative affect. She was a swimmer and she wanted to return to the pool, and she wrote that “two months after my training resumed I made my Olympic Team Trials cuts,” which was an “incredible feat.” The negative experience of an illness was thereby redeemed by a triumphant recovery. The recovery represented a redemptive move, gaining it one point. Then, she received an additional point for enhanced agency because she gained self-insight because she “found my love for swimming again in the midst of all that.” Finally, in the tail-end of the response, she wrote that she “also found my trust and faith in God

again after returning to the pool and starting to recover,” revealing that this experience was also deeply spiritual, scoring her one final point for ultimate concerns. Thus, the final redemption sequence score was 3 points.

Religiosity. The participant’s religiosity was measured using the *Santa Clara Scale of Religious Faith Questionnaire* (SCSORF, Plante & Boccaccini, 1997; $\alpha = 0.95$, $r = 0.92$; see Appendix B). This scale is designed to measure religiosity regardless of denomination. Some examples of items include “I pray daily” and “My relationship with God is extremely important to me.” This 10-item questionnaire contains items that concern various religious activities and asks the participant to rank their agreement on a 4-point scale, ranging from 1 “strongly disagree” to 4 “strongly agree.” The rankings are then summed to form a religiosity score. Scores above 30 points are considered “high religiosity” whereas below 10 are considered “low religiosity”.

Christian conservatism. To measure the Christian conservatism of the participant, I utilized twin, published measurement scales called the *Christian Conservatism Scale* (CCS) and the *Christian Liberalism Scale* (CLS), developed by Stellway (1973, see Appendix C). These scales have 7 and 6 items, respectively, and ask the participant to rank their agreement on a 5-point Likert scale (where 1 meant “strongly disagree” and 5 meant “strongly agree”). An example from the CCS include “Religious truth is higher than any other form of truth.” Examples from the CLS include “Science and religion are both equally good ways to find truth” and “Biblical miracles did not happen as the Bible says they did but have been used as examples.” A high score on the Christian Conservatism Scale and a low score on the Christian Liberalism Scale indicated that the person was a conservative Christian. The inverse indicated

that the person was a liberal Christian. While both measures were included, the Christian Conservatism Scale was solely used for analyzing Hypotheses 1B and 2.

Belief in Bible inerrancy. Question 7 from the *Christian conservatism scale* was utilized as a measurement for belief in Bible inerrancy (a hallmark of conservative and fundamental strands of Christianity in which one believes that the Bible is directly from God and contains no errors). The question was “The Bible is God's message to humanity and all that it says is true.” It was measured using the same 5-point Likert scale where a 5 indicated strong belief in Bible inerrancy and 1 indicated a rejection of the belief in Bible inerrancy. This is a second measurement for Christian conservatism that was analyzed independently to the CCS score.

Perceived conservatism. This was a question at the end of the survey that was used to measure the participant’s perceived level of conservatism. The question asked “Where would you say that you fall on the spectrum on religious beliefs regarding theology?” There was a sliding scale went from 0 to 100 where 0 meant “Very liberal or progressive,” 50 meant “moderate or undecided”, and 100 meant “very conservative or fundamentalist.” This score was then available to double check scores on the CCS and the CLS to verify the validity of the scales.

Life satisfaction. The participants’ life satisfaction was measured using the *Satisfaction with Life Scale* (SWLS, Diener et al., 1985; $\alpha = 0.79-0.89$; see Appendix D). This is a published 5-item questionnaire that is scored using a 7-point scale (1 = “strongly disagree” and 7 = “strongly agree”). A score above 26 indicates that the participant is satisfied or very satisfied with life. A score below 14 indicates that the participant is dissatisfied or very dissatisfied with life. These scores will indicate the participant’s life satisfaction score, which is also called “hedonic well-being,” for my study. Some examples of the items include “In most ways my life is close to my ideal” and “The conditions of my life are excellent.”

Psychological well-being (PWB). While the SWLS measure will measure the subjective well-being of the participant, it is also important to utilize a more eudaimonic approach. This is in reference to the debate between hedonic and eudaimonic well-being as the appropriate construct for positive psychology. Thus, there is a need to also measure the participant's psychological well-being. This was measured by the *Ryff's Scales of Psychological Well-Being Questionnaire* (Ryff, 1989; $\alpha = 0.86-0.93$; see Appendix E). This is a 54-item test with 6 sections (Autonomy, Environmental Mastery, Personal Growth, Positive Relations With Others, Purpose In Life, and Self-Acceptance), each measuring a particular dimension of psychological well-being. Each item was scored using a 6-point scale where 1 meant "strongly disagree" and 6 meant "strongly agree." Some examples from this questionnaire included "My decisions are not usually influenced by what everyone else is doing" and "People would describe me as a giving person, willing to share my time with others." All section scores were combined to form an total psychological well-being score.

Design

Religiosity, Christian conservatism, and redemption sequences were measured to predict satisfaction with life and psychological well-being. The study utilized correlational analysis for Hypotheses 1 and 2. Then, partial correlations controlling for redemption sequences between religion and well-being measures were calculated for Hypothesis 3A, and multiple regression analysis applied for Hypothesis 3B. Ultimately, it was hypothesized that statistically significant and positive correlations would be found among all of the variables and redemption sequences would be shown to mediate the relationship between religion and well-being measures.

Results and Discussion

The current investigation studies the relationships among religious orientation, religiosity, total redemption sequence scores, satisfaction with life and PWB. This section will begin with a preliminary analysis of correlations of the measurements for each variable, and then results and discussion will be organized by hypothesis. The variables for religion and well-being had significant associations within constructs. For religion, Christian conservatism scores and SCSORF scores were positively correlated ($r = .56, p < 0.001$). Christian conservatism was also significantly correlated with perceived levels of conservatism ($r = .46, p < 0.05$). However, this reveals a potential disconnect between the measures and which Christian beliefs one holds.

For well-being, scores from the SWLS and total scores for PWB also had robust positive correlations ($r = .66, p < 0.001$). Correlations between SWLS and each of the 6 scales within Ryff's Scales yielded significant positive associations with autonomy ($r = .43$), purpose in life ($r = .55$), environmental mastery ($r = .65$), and self-acceptance ($r = .73$), the last two having p values under 0.001.

Hypothesis 1: Replicating Previously Found Correlations

Hypothesis 1A. Table 1 shows religion and narrative measures and their correlations with both measures of well-being. In general, the measures for religion were not significantly related to either measure for well-being. SCSORF scores had statistically insignificant ($p \approx .50$) and weak correlations (around $+ .15$) with the SWLS and PWB. Thus, hypothesis 1A was not supported by the data. No inference can be made here because the results are inconclusive.

Hypothesis 1B. For Christian conservatism, there was a positive but insignificant correlation with the SWLS ($r = .28, p = .17$) and a positive correlation with total scores of PWB ($r = .33, p = .10$). Thus, at first, Hypothesis 1B was not supported, thereby not replicating the

findings of Ferriss (2002). While there were no statistically significant correlations for Christian conservatism scores, belief in Bible inerrancy was significantly and positively associated with SWLS scores ($r = .39, p < 0.05$). Thus, Hypothesis 1B is partially supported by belief in Bible inerrancy and its correlation with the SWLS. This means that there is a significant association between a particular conservative Christian belief and subjective well-being.

Hypothesis 1C. As is clear in Table 1, the redemption sequence measurement was significantly correlated with both measures of well-being across many dimensions. Primarily, the total scores of redemption sequences had moderate and significant correlations with both the SWLS ($r = .46, p < 0.05$) and PWB ($r = .58, p < 0.01$). This, along with other correlations among the components, replicates the findings of McAdams et al. (2001). Thus, hypothesis 1C is supported by the data.

Hypothesis 1D. A look at Table 2 reveals insignificant relationships between religion and narrative measures. In particular, religiosity was not significantly related to redemption sequences ($r = .18, p = .37$). This finding does not support previous findings by Vishkin et al. (2016) of a positive relationship between religiosity and cognitive reappraisal. Therefore, hypothesis 1D was not supported.

While this set of hypotheses did not involve finding relationships with each scale of Ryff's scales of psychological well-being, many significant correlations were found that evoke discussion in the realm of well-being. While the religious measures did not have statistically significant correlations with total PWB scores, Christian conservatism and belief in Biblical inerrancy both correlated moderately just under $r = .50$ ($p < .05$) with environmental mastery. This scale involves questions that deal with feeling of control over one's time, responsibilities, and situation. It would make sense that people that have more certain beliefs—like beliefs

regarding salvation (i.e. going to heaven after death) or feeling that God is in control, so therefore God will take care of them—would feel a sense of control about their daily lives and future.

The narrative measures had strong and statistically significant correlations with many of the scales of PWB. Redemption sequences, imagery, and enhanced agency all had moderate correlations with environmental mastery, purpose in life, and self-acceptance. This finding makes sense because these scales deal with the ability to cognitively and emotionally feel control in one's situation, to find meaning in life events, and to have compassion for one's past. Thus, it should be expected that those who reframe events in positive or meaningful ways in stories would also score high on these measures. This evident connection also characterizes the correlation between agency and the scale of autonomy. What is intriguing is the fact that enhanced communion was only significantly and strongly correlated with purpose in life. It might be expected that enhanced communion would also correlate with positive relations with others, yet the data shows no relationship. Instead, it seems that when one goes through an experience and finds that they grow closer to someone because of it, they are actively finding meaning in the situation, thereby seeking purpose in life. Since there was generally no significant relationship between religion and well-being, it makes sense why ultimate concerns would not be statistically significantly related to well-being measures.

Hypothesis 2: Christian Conservatism and Cognitive Reappraisal

Another look at Table 2 shows that Christian conservatism was not significantly correlated with redemption sequences ($r = .27, p = .18$). Bible inerrancy was also not significantly correlated, although it got close to the alpha level of 0.05 ($r = .36, p = .07$). Thus,

hypothesis 2 was not supported by the data. According to the data, there is no statistically significant relationship between the constructs of religion and cognitive reappraisal.

It is surprising that there is lack of statistically significant correlation between ultimate concerns and any measure of religion. This being the religious and spiritual narrative measure, it would make sense that highly religious persons describing redemptive scenes would also add in talk about experiencing God or their spirituality. However, this can be explained by the fact that the point for ultimate concerns could not be awarded unless redemptive imagery was first established in a story. There were many life story scenes that mentioned God and spirituality, however these were not counted unless they had redemptive imagery.

Hypothesis 3: Cognitive Reappraisal as a Mediating Factor

In the end, a mediation analysis was unable to be performed because only Hypothesis 1A and 1D were supported. A summary of the correlations, both statistically significant and not, is found in Figure 5. Since most of the correlations were not statistically significant—especially those between the religion and well-being measure—the following analyses meant nothing in regards to cognitive reappraisal as a mediator.

Hypothesis 3A. A partial correlation analysis showed a general decrease (ranging from -.05 to -.17) in the various correlations between religion and well-being measures when controlling for redemption sequences. The correlations and their differences are summarized in Table 3. After controlling for redemption sequences, the one statistically significant correlation between belief in Bible inerrancy and satisfaction with life became insignificant ($p = .19$), also having the correlation decrease from $r = .39$ to $r = .27$.

Hypothesis 3B. Multiple regression analysis was calculated to predict both satisfaction with life and PWB based on scores of religiosity, Christian conservatism, and redemption

sequences. When predicting satisfaction with life with Bible inerrancy as the conservatism variable, there was no significant regression equation found according to alpha level 0.05 ($F(3, 22) = 2.77, p = 0.07, R^2 = .27$). When predicting PWB with the CCS score for conservatism, a significant regression was found ($F(3, 22) = 4.34, p < 0.05$) with an R^2 of .32. The predicted value of PWB is equal to $183.64 + 0.133 (\text{SCSORF}) + 4.636 (\text{redemption sequences}) + 1.063 (\text{CCS})$, in which PWB increased the coefficient value for each unit of the variable. As found in the correlations above, religiosity and Christian conservatism were not significant predictors of PWB ($p > .30$ for both). However, redemption sequences were a significant predictor of PWB ($p < 0.01$), predicting a 4.636 increase in PWB for each point of a redemption sequence. A simple regression between the two is shown in Figure 6. These findings are similar to the findings of McAdams et al. (2001), providing a replication of his original findings.

In regards to cognitive reappraisal as a mediator, the results are inconclusive. This was frustrated by the lack of some statically significant relationships among the three tested constructs.

Limitations

There are several limitations of the study that should be remediated in order to try again in search of statistically significant correlations among the three constructs that have been found by previous research. These limitations involve problems with the sample, social desirability bias, nature of the survey, and potential problems with the variable of conservatism.

The sample was small, and so any insignificant findings are subject to some doubt. The sample was constrained by both time and resources, and so it was determined to have a small group in order to lessen the burden of qualitative analysis of the life story scenes. The sample also was not representative of the adult population since it focused primarily on college students.

While college students can be religious, this time in young adulthood may also be characterized by changing priorities and religious identifications, and so this could affect their religiosity and beliefs about Christianity.

Another limitation was revealed in frequency distribution of religiosity scores from the SCSORF (see Figure 7). The modal response (38% of all responses) was a perfect score of 40. This skewing of the results may have confounded the analysis of religiosity with any other variable. One possible explanation for the skewing of the results is the social desirability bias. Since respondents were asked to affirm their identification as a Protestant Christian in order to take the survey, this might have primed them to present themselves as more “Christian” or more religious than usual. Thus, when filling out the SCSORF, a couple of biases could have been at play. First, the social desirability bias would make the respondent think about how the investigator might want them to respond as a strong Christian, thereby overestimating their religiosity. Second, since participants claimed their identification as a Protestant Christian at the beginning of the survey, an internal bias to avoid cognitive dissonance might have influenced participants to overstate their religiosity. Another possible explanation relates to sampling populations. Students from Christian student organizations are probably students that tend to be more religious than their peers. This is partially affirmed by the fact that responses from participants in Christian student organizations had a mean response of 35.8, which was 3 points higher than those from Psychology 301 students. Had the sample size been larger, any main effect here would have been more accentuated.

The survey also contained limitations in itself. First, the length of the survey served as a deterrent, thus limiting the number of people who took the survey. As a deterrent for some, it also could mean that certain types of people would have taken the survey. Given that potential

participants only knew about the chance to talk about their lives and had to be a Christian, it may have selected for people who felt particularly confident in or motivated by their identification as a Christian. Second, the survey primed people with religion and Christianity because of the screening question at the beginning. This is an important difference between this study and that of McAdams et al. (2001). It is possible that participants knew going into writing their stories that their religion and beliefs might be analyzed. If this were true, then the sample of responses may have more religious references than the statistical average of the population. Third, participants not following instructions completely also might have affected scores for redemption sequences. While the prompt asked participants to describe how each life story scene was important in their life story, only some did this. Importantly, this was often where a redemptive move would come from, either from making meaning from the experience or describing some personal growth or insight gained from the experience. Thus, there were missed opportunities for redemption sequence scores that might have otherwise been included had the participant followed the instructions.

Finally, the exclusion of those without a religion, while necessary for the Christian conservatism variable, could have limited that potential variability of the data to establish correlations among religion, cognitive reappraisal, and well-being. By including those who were not religious, the study would have had a bottom end of the religiosity with a potential for finding a statistically significant interaction between high and low religiosity with well-being and narrative measures.

Conclusion and Further Research

Cognitive reappraisal, particularly the positive construal of stressful memories, is a valuable emotional regulation strategy. By utilizing narrative psychology measures like

redemptive sequence coding of life story scenes, the present investigation utilized a more objective measurement of how cognitive reappraisal positively correlates with both hedonic and eudaimonic well-being, as measured by SWLS and PWB, respectively. With this in mind, it was questioned whether practices of and beliefs within religion were associated with more frequent use of cognitive reappraisal. This stemmed from previous findings of associations among the three constructs that had never been researched altogether. Additionally, there was a theoretical understanding that cognitive reappraisal would be facilitated by religious beliefs like theodicy and by religious practice that garners social support.

In sum, significant associations were found between a belief in Biblical inerrancy (one of two measures for Christian conservatism) and satisfaction with life as well as between redemption sequences (for the construct of cognitive reappraisal) and both measures of well-being, supporting hypotheses 1B and 1C. However, results were inconclusive for the hypotheses 1A, 1D, 2, 3A and 3B. Thus, there is no data to support the original claim that cognitive reappraisal acts as a potential mediator in the relationship between religion and well-being.

Despite the inconclusive findings, the study has a variety of significant aspects to offer the psychology research community. First, it attempted to replicate the findings of a few important studies by Ferriss (2002), McAdams et al. (2001), Vishkin et al. (2016), and Ellison (1991). This was important for two reasons: to validate the previous work and to establish the preliminary correlations for further work for a new analysis building upon these observations. Thus, the present investigation offers data and findings that potentially contradict those found by Ferris, Vishkin et al., and Ellison.

As a second contribution of this research, the study is pilot work of a potentially new way of studying cognitive reappraisal. The narrative psychological design is an improvement on self-

report measures. By asking one to tell a particular scene from one's life, the participant must pull together various parts of their memories and identity together to curate the appropriate story. During this process, there are also narrative decisions that one must make as to determine emotional flow and direction. Hence, by the participant describing (either consciously or unconsciously) a negative scene that turns into a positive or meaningful one, redemptive sequences offer a glimpse into real-time cognitive reappraisal of events. Thus, the present investigation offers a set of parameters for using the redemptive coding scheme with a section of the Life Story Interview as a means of measuring cognitive reappraisal.

Future research should consider expanding upon the design of this study to further explore how cognitive reappraisal possibly mediates the relation between religion and well-being. If time and recruitment constraints were removed from the study by increasing the sample size and broadening the population scope to include non-religious people, it would be possible to see whether other significant correlations exist. Additionally, it is important for future research to design a study that resists social desirability bias and an internal bias from a screening question. This could be remediated by including a measure of social desirability bias and also having a less direct screening process (such as, instead of having a single screening question, taking several demographic items like age, gender, and GPA that include a religious question).

Another fruitful area for research is the potential contextual effects (such as setting of interview or telling of the life story) on actual cognitive reappraisal through life stories. Where one tells their life story may affect how they construe events and construct a narrative because situations differ in their amount of stress and social pressure exerted on a person. As such, considering that religion exerts contextual influence on people, it is supposed that different types of religious contexts for telling stories such as testimonies may change the amount of cognitive

reappraisal utilized. As an anecdotal example, there can be pressure for a lay person speaking during a church service to always highlight a positive aspect of any criticism or negative experience they may bring to light. For instance, if someone states that they had a moment of doubt in their faith, it is almost never left at that point of spiritual unease; instead it is redeemed by an affirmation that the church supported them or that they had worked through it somehow.

Finally, there are other potential mediating factors for the relationship between religion and well-being that could be researched through analyzing narratives with coding schemes. Studies have explored other mediating factors for the relationship between religiosity and well-being, such as meaning in life (Chamberlain & Zika, 1992) and optimism (Salsman et al., 2005). Since both of these constructs are found in life narratives, there are potential coding schemes that could be used to perform similar investigations as that described in this paper. A meaning in life coding scheme could score connecting statements that bridge scenes to a global belief (either religious or otherwise). Park (2013) suggests that religiousness comes with a sense of purpose in life that helps assign meaning to quotidian experiences. As for the second potential mediator, optimism is typically operationally defined as “the favorability of a person’s generalized outcome expectancy” (Scheier & Carver, 1985, p. 232). One could develop a coding scheme to count the number of times the narrator estimates a favorable outcome in the future, either within the story or as a prediction of the future. It is speculated that the narrative measurement scores in optimism and meaning in life would be positively correlated with both religion and well-being.

There seems to be an inherent human need to make sense of life experiences through stories. In fact, stories offer a natural avenue for cognitive reappraisal to help cope with stressful events in life. McAdams (1993) writes that “stories help us organize our thoughts, providing a narrative for human intentions and interpersonal events that is readily remembered and told. In

some instances, stories may also mend us when we are broken, heal us when we are sick, and even move us toward psychological fulfillment and maturity” (p. 31). And when life events, feelings and ideas become cumbersome and difficult to manage, religion offers a way to make meaning of experiences in quick and socially validated ways. In fact, thinking about life in religious terms has social benefits in religious communities through the telling of testimonies that not only affirm the religious story but also affirm one’s place in that community. When religion is done well, the boost of social support as well as the facilitation of making meaning provides a potential way to make religion powerful for building up well-being. Thus, research identifying religious variables that facilitate or detract from this relationship is valuable for the edification of a still mostly religious United States.

Religious or not, it is clear that looking back on one’s life through a redemptive lens could help make you happier and make your life more meaningful. Stories are inherent devices that help regulate emotions, make meaning, and cope with life’s hardships. When listening to stories from friends or on the news, at work or during a religious service, it is likely replete with stories of redemption that can be anything from a long day that ends with quality time with a spouse to a tragic death that reveals the solidarity and connectedness of a community. The urge to tell stories is clearly not just within oneself; it draws us closer to one another to engage and connect. In sharing stories and forging redemption, communities and the individuals within them can live happier, more meaningful lives.

References

- Adams, J. T. (1931). *The epic of America*. Boston: Little, Brown.
- Adler, J. M., Turner, A. F., Brookshier, K. M., Monahan, C., Walder-Biesanz, I., Harmeling, L. H., ... Oltmanns, T. F. (2015). Variation in narrative identity is associated with trajectories of mental health over several years. *Journal of Personality and Social Psychology*, 108(3), 476–496.
- Adler, J. M., & Poulin, M. J. (2009). The political is personal: Narrating 9/11 and psychological well-being. *Journal of Personality*, 77(4), 903–932.
- Bauer, J. J., McAdams, D. P., & Pals, J. L. (2008). Narrative identity and eudaimonic well-being. *Journal of Happiness Studies*, 9(1), 81–104.
- Berthold, A., & Ruch, W. (2014). Satisfaction with life and character strengths of non-religious and religious people: it's practicing one's religion that makes the difference. *Frontiers in Psychology*, 5, 1-9.
- Chamberlain, K., & Zika, S. (1992). Religiosity, meaning in life, and psychological well-being. In J. F. Schumaker (Ed.), *Religion and mental health* (pp. 138–148). New York: Oxford University Press.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment*, 49, 71-75.
- Diener, E., Tay, L., & Myers, D. G. (2011). The religion paradox: If religion makes people happy, why are so many dropping out? *Journal of Personality and Social Psychology*, 101(6), 1278–1290.
- Ellison, C. G. (1991). Religious involvement and subjective well-being. *Journal of Health and Social Behavior*, 32(1), 80-99.
- Ferriss, A. (2002). Religion and the Quality of Life. *Journal of Happiness Studies*, 3, 199-215.
- Fowler, R. D., Seligman, M. E. P., & Koocher, G. P. (1999). The APA 1998 Annual Report. *American Psychologist*, 54(8), 537–568.
- Freud, S. (2010). *Civilization and its discontents*. (J. Strachey, Trans.). New York: W.W. Norton & Company. Print. (Originally published 1930).
- Green, M., & Elliott, M. (2010). Religion, Health, and Psychological Well-Being. *Journal of Religion and Health*, 49(2), 149–163.
- Gross, J. J. (1998). The emerging field of emotion regulation: An integrative review. *Review Of General Psychology*, 2(3), 271-299.

- Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85, 348-362.
- Haybron, D. M. (2016). The philosophical basis of eudaimonic psychology. In Virrersø, J (Ed.), *Handbook of Eudaimonic Well-Being* (pp. 27-53). Cham: Springer International Publishing.
- Hirsh, J. B., Walberg, M. D., & Peterson, J. B. (2013). Spiritual Liberals and Religious Conservatives. *Social Psychological and Personality Science*, 4(1), 14-20.
- Hood, R. W., Jr., Hill, P. C., & Spilka, B. (2009). *The psychology of religion: an empirical approach* (4th ed.). New York: Guilford Press.
- Joshanloo, M. (2011). Investigation of the contribution of spirituality and religiousness to hedonic and eudaimonic well-being in Iranian young adults. *Journal of Happiness Studies*, 12(6), 915-930.
- Koenig, H. G., McCullough, M. E., & Larson, D. B. (2001). *Handbook of religion and health*. Oxford; New York: Oxford University Press.
- Kyrios, M. (2002). Cognitive-behavior therapy in medical illness. In Simos, G. (Ed.). (2002). *Cognitive behaviour therapy: a guide for the practicing clinician*. Hove: Brunner-Routledge.
- Liao, H.-W., Bluck, S., & Cheng, C.-L. (2015). Young women in today's Taiwan: Relation of identity status and redemptive narration to psychological well-being. *Sex Roles*, 73(5-6), 258-272.
- Lim, C. (2015). Religion and Subjective Well-Being Across Religious Traditions: Evidence from 1.3 Million Americans. *Journal for the Scientific Study of Religion*, 54(4), 684-701.
- Marx, K. (1970). *Critique of Hegel's "Philosophy of right."* (J. J. O'Malley, Trans.). Cambridge [Eng.]: University Press. (Originally published in 1844).
- Masten, A. S., Best, K. M., & Garmezy, N. (1990). Resilience and development: Contributions from the study of children who overcome adversity. *Development and Psychopathology*, 2(4), 425.
- McAdams, D. P. (1993). *The stories we live by: Personal myths and the making of the self*. New York, NY: W. Morrow.
- McAdams, D. P. (2006). *The redemptive self: Stories Americans live by*. New York: Oxford University Press.
- McAdams, D. P., Reynolds, J., Lewis, M., Patten, A., & Bowman, P. J. (2001). When bad things turn good and good things turn bad: Sequences of redemption and contamination in life

- narrative, and their relation to psychosocial adaptation in midlife adults and in students. *Personality and Social Psychology Bulletin*, 27, 472-483.
- Moore, A. (2013). Hedonism. In E. N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy* (Winter 2013). Metaphysics Research Lab, Stanford University. Retrieved from <https://plato.stanford.edu/archives/win2013/entries/hedonism/>
- Pew Research Center. (2014) America's changing religious landscape. Washington, D.C. Retrieved from <http://www.pewforum.org/2015/05/12/americas-changing-religious-landscape/>
- Pargament, K. (1997). *The psychology of religion and coping: Theory, research, practice*. New York: Guilford Press.
- Pargament, K. I., Poloma, M. M., & Tarakeshwar, N. (2001). Methods of coping from the religions of the world: The bar mitzvah, karma, and spiritual healing. In C. R. Snyder (Ed.), *Coping with stress: Effective people and processes* (pp. 259–284). New York: Oxford University Press.
- Park, C. L. (2013). Religion and meaning. In R. F. Paloutzian & C. L. Park (Eds.), *Handbook of the psychology of religion and spirituality* (pp. 357–378). New York: The Guilford Press.
- Park, C. L., & Folkman, S. (1997). Meaning in the context of stress and coping. *Review of General Psychology*, 1(2), 115–144.
- Plante, T. G., & Boccaccini, M. T. (1997). The Santa Clara Strength of Religious Faith Questionnaire. *Pastoral Psychology*, 45(5), 375-387.
- Plantinga, A. (1977). *God, Freedom, and Evil*. Grand Rapids: Eerdmans.
- Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, 52(1), 141–166.
- Ryff, C. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57, 1069–1081.
- Salsman, J. M., Brown, T. L., Brechting, E. H., & Carlson, C. R. (2005). The link between religion and spirituality and psychological adjustment: The mediating role of optimism and social support. *Personality and Social Psychology Bulletin*, 31(4), 522–535.
- Scheier, M. F., & Carver, C. S. (1985). Optimism, coping, and health: Assessment and implication of generalized outcome expectancies. *Health Psychology*, 4, 219-247.
- Stellway, R. J. (1973). The correspondence between religious orientation and sociopolitical liberalism and conservatism. *Sociological Quarterly*, 14, 430-439.
- Telfer, E. (1980). *Happiness*. New York: St. Martin's Press.

- Tooley, M. (2015). The Problem of Evil. In E. N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy* (Fall 2015). Metaphysics Research Lab, Stanford University. Retrieved from <https://plato.stanford.edu/archives/fall2015/entries/evil/>
- Waterman, A. S. (1993). Two conceptions of happiness: Contrasts of personal expressiveness (eudaimonia) and hedonic enjoyment. *Journal of Personality and Social Psychology*, 64(4), 678–691.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54(6), 1063–1070.
- Weber, M. (1946). *From Max Weber: Essays in sociology*. (C. W. Mills & H. H. Gerth, Trans.). New York: Oxford university press.
- Wilson, W. R. (1967). Correlates of avowed happiness. *Psychological Bulletin*, 67(4), 294–306.
- Wnuk, M., & Marcinkowski, J. T. (2014). Do existential variables mediate between religious-spiritual facets of functionality and psychological wellbeing. *Journal of Religion and Health*, 53(1), 56–67.
- Van Cappellen, P., Toth-Gauthier, M., Saroglou, V., & Fredrickson, B. L. (2016). Religion and well-being: The mediating role of positive emotions. *Journal of Happiness Studies*, 17(2), 485–505.

Table 1

Correlations between Religion and Narrative Measures and Well-Being

| | Ryff's Psychological Well-Being | | | | | | | SWLS |
|--------------------|---------------------------------|-------|------|-------|-------|-------|-------|------|
| | 1 | 2 | 3 | 4 | 5 | 6 | Total | |
| Religiosity | -.07 | .02 | .36 | .27 | .16 | -.11 | .15 | .14 |
| Chr. Conservatism | .26 | .48* | -.12 | .32 | .18 | .23 | .33 | .28 |
| Bible Inerrancy | .31 | .47* | -.11 | .28 | .06 | .38 | .34 | .39* |
| Chr. Liberalism | .04 | .01 | -.05 | -.40* | .08 | .23 | -.03 | .24 |
| Redemption (Total) | .37 | .43* | .38 | .24 | .56** | .58** | .58** | .46* |
| Imagery | .33 | .40* | .32 | .27 | .46* | .54** | .53** | .49* |
| Agency | .47* | .54** | .21 | .33 | .50** | .52** | .59** | .32 |
| Communion | .22 | .22 | .24 | -.06 | .60** | .36 | .35 | .34 |
| Ultimate Concerns | .07 | .06 | .40 | -.01 | .25 | .28 | .23 | .29 |

* $p < 0.05$, ** $p < 0.01$

Note. The categories for Ryff's Psychological Well-Being go as follows: 1–Autonomy; 2–Environmental Mastery; 3–Personal Growth; 4–Positive Relations with Others; 5–Purpose in Life; and 6–Self-Acceptance. Religiosity was measured by the Santa Clara Scale of Religious Faith Questionnaire (Plante & Boccaccini, 1997). Christian conservatism and Christian liberalism were measured by the Christian Conservatism Scale and Christian Liberalism Scale, respectively (Stellway, 1973). Bible Inerrancy was measured by the response from question 7 on the Christian Conservatism Scale. Redemption sequence scores are all sum totals of coding from 10 life story scenes for each participant.

Table 2

Correlations between Religion Measures and Redemption Sequence Measures

| | Redemption Sequence Measures | | | | |
|-------------------|------------------------------|--------|-----------|----------|-------|
| | | | | Ultimate | |
| | Imagery | Agency | Communion | Concerns | Total |
| Religiosity | .28 | -.01 | .07 | .13 | .18 |
| Chr. Conservatism | .24 | .30 | .16 | .10 | .27 |
| Bible Inerrancy | .38 | .24 | .08 | .26 | .36 |
| Chr. Liberalism | .17 | .05 | .20 | .08 | .16 |

* $p < 0.05$, ** $p < 0.01$

Note. Religiosity was measured by the Santa Clara Scale of Religious Faith Questionnaire (Plante & Boccaccini, 1997). Christian conservatism and Christian liberalism were measured by the Christian Conservatism Scale and Christian Liberalism Scale, respectively (Stellway, 1973). Bible Inerrancy was measured by the response from question 7 on the Christian Conservatism Scale.

Table 3

*Partial Correlations between Religion and Well-Being when Controlling for Redemption**Sequences and Differences with Table 1*

| | PWB Total | SWLS |
|------------------------|-----------|------|
| Religiosity | .05 | .06 |
| <i>Difference</i> | -.10 | -.08 |
| Christian Conservatism | .22 | .18 |
| <i>Difference</i> | -.11 | -.10 |
| Bible Inerrancy | .17 | .27 |
| <i>Difference</i> | -.17 | -.12 |
| Chr. Liberalism | -.16 | .19 |
| <i>Difference</i> | -.13 | -.05 |

* $p < 0.05$, ** $p < 0.01$

Note. Difference values represent the change from the original correlations from Table 1 and the partial correlations from this table. It was calculated as Table 3 value minus Table 1 value.

Religiosity was measured by the Santa Clara Scale of Religious Faith Questionnaire (Plante & Boccaccini, 1997). Christian conservatism and Christian liberalism were measured by the Christian Conservatism Scale and Christian Liberalism Scale, respectively (Stellway, 1973). Bible Inerrancy was measured by the response from question 7 on the Christian Conservatism Scale.

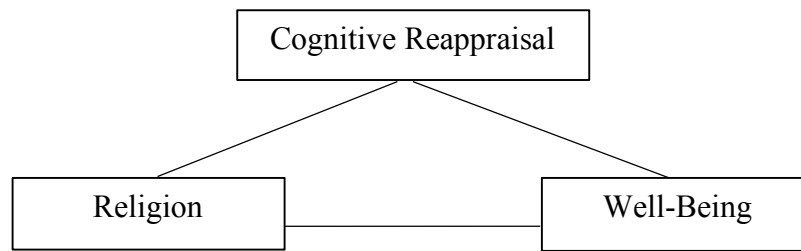


Figure 1: Theoretical model for present investigation. Lines represent associations between constructs.

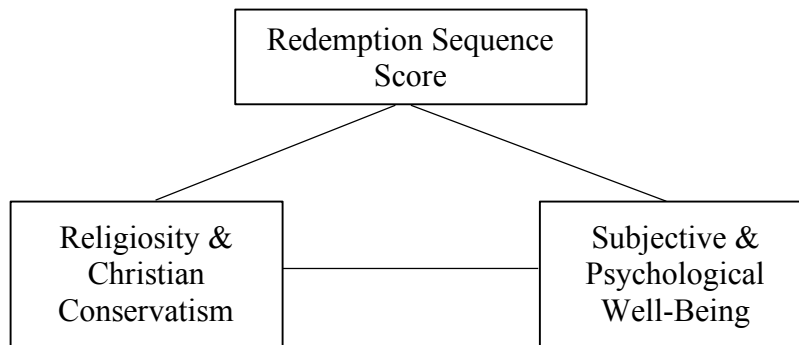


Figure 2: Operationalized model of present investigation. This is an operationalization of the constructs of the theoretical model (Figure 1). Lines represent associations between constructs.

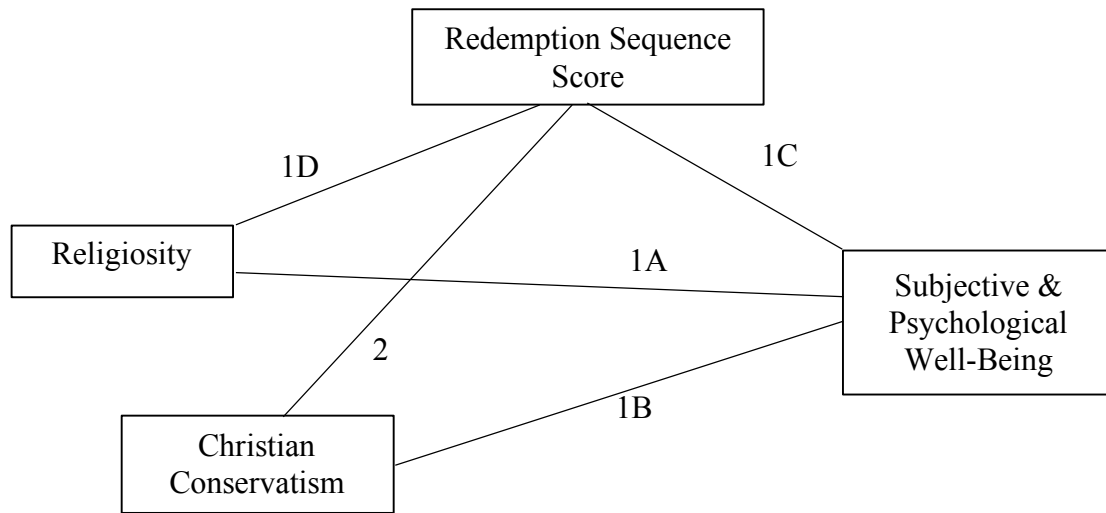


Figure 3: Illustration of Hypotheses 1 and 2. The lines represent the associations between variables, and the number next to each line refers to the particular hypothesis.

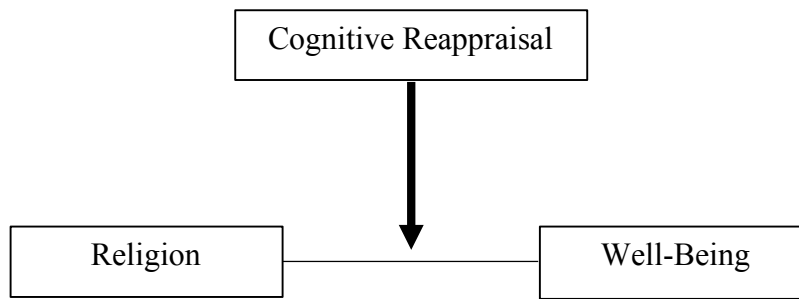


Figure 4: Mediation model of cognitive reappraisal between religion and well-being. Lines represent associations between constructs while the arrow represents the mediation of cognitive reappraisal in the relationship between religion and well-being.

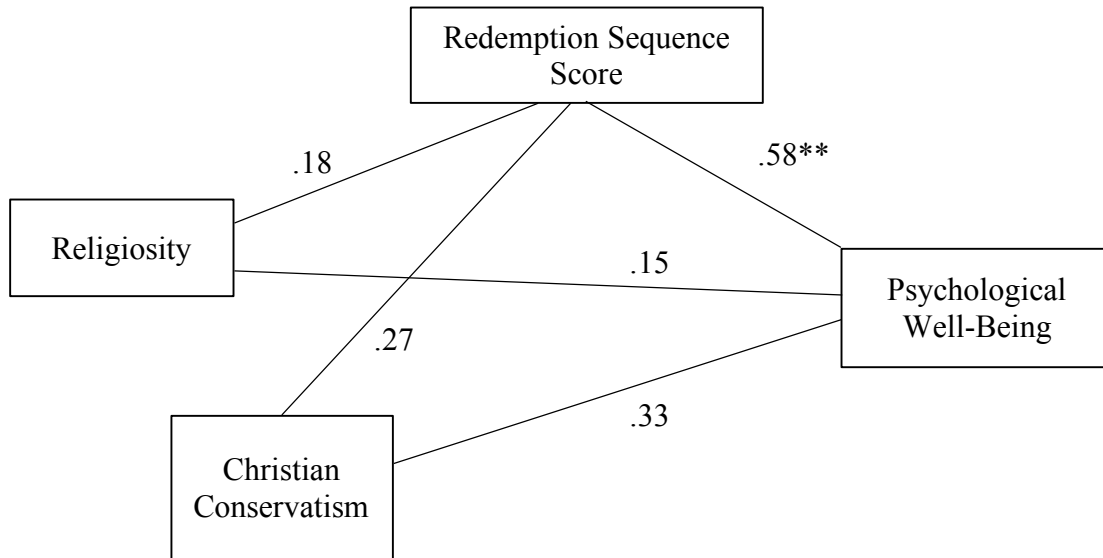


Figure 5: Observed correlations among redemption sequence score, psychological well-being, religiosity, and Christian conservatism. The lines represent the associations between variables. One star indicates a significance level below 0.05 while two stars indicates a significance level below 0.01.

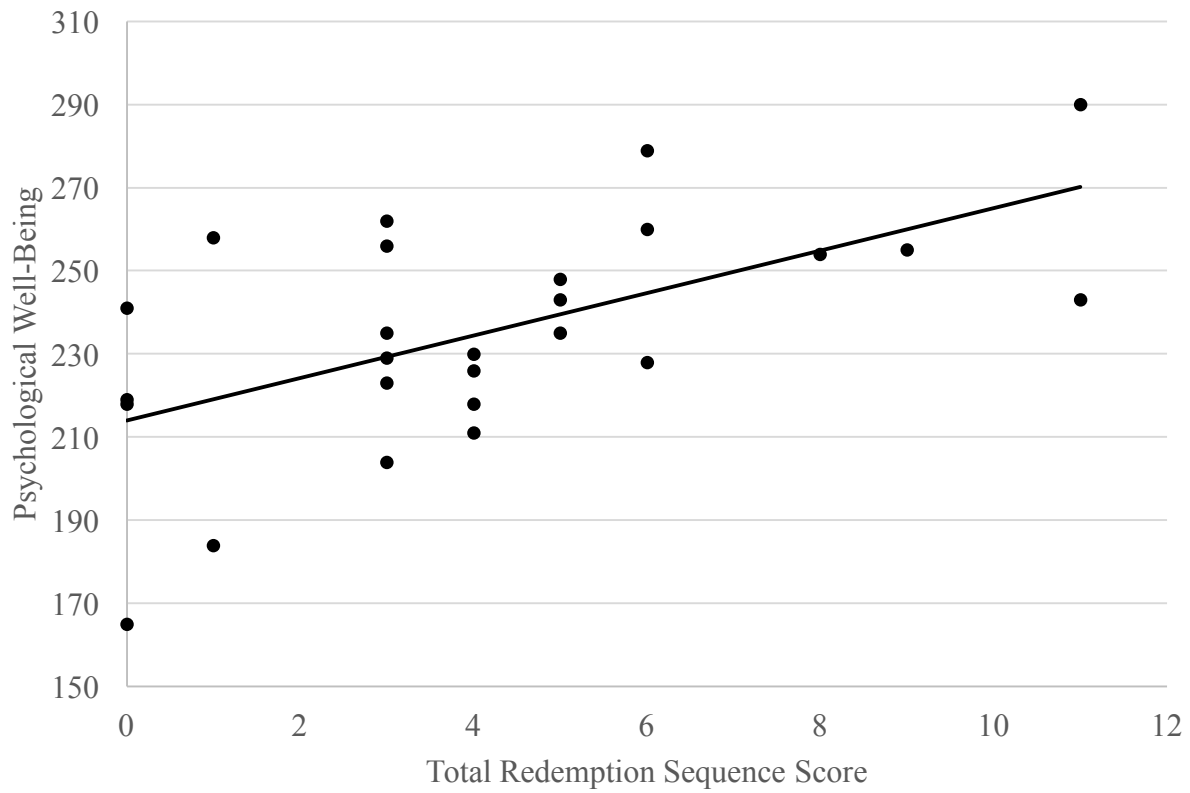


Figure 6: Regression of total redemption sequence scores predicting psychological well-being.

The equation of the relationship is $PWB = 5.11(\text{total redemption sequence score}) + 213.91$ with an R^2 of 0.34.

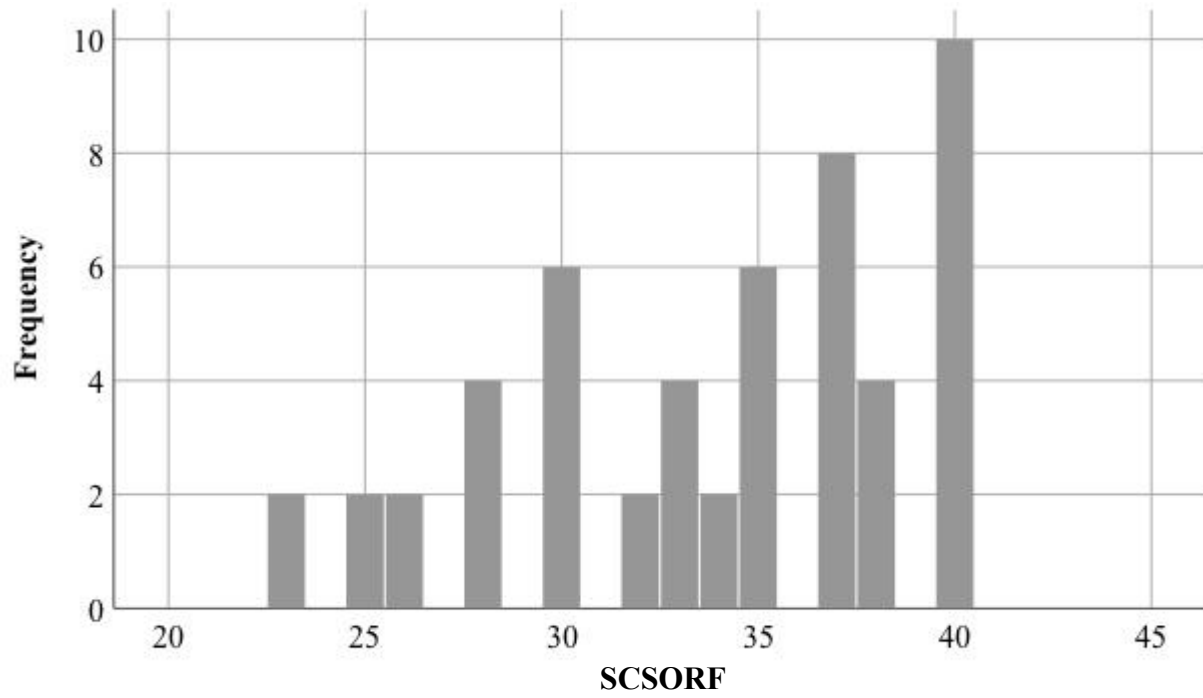


Figure 7: Frequency histogram of SCSORF responses.

Appendix A

Life Events Section of the Life Story Interview (McAdams, 1993)

We would like you to focus in on a few key scenes that stand out in the story. A key scene would be an event or specific incident that took place at a particular time and place. Consider a key scene to be a moment in your life story that stands out for a particular reason – perhaps because it was especially good or bad, particularly vivid, important, or memorable. For each of the eight key events we will consider, we ask that you describe in detail what happened, when and where it happened, who was involved, and what you were thinking and feeling in the event. In addition, we ask that you tell us why you think this particular scene is important or significant in your life. What does the scene say about you as a person? Please be specific.

NOTE: Each response must be at least 500 characters.

1. High Point

Please describe a scene, episode, or moment in your life that stands out as an especially positive experience. This might be the high point scene of your entire life, or else an especially happy, joyous, exciting, or wonderful moment in the story. Please describe this high point scene in detail. What happened, when and where, who was involved, and what were you thinking and feeling? Also, please say a word or two about why you think this particular moment was so good and what the scene may say about who you are as a person.

2. Low Point

The second scene is the opposite of the first. Thinking back over your entire life, please identify a scene that stands out as a low point, if not the low point in your life story. Even though this event is unpleasant, I would appreciate your providing as much detail as you can about it. What happened in the event, where and when, who was involved, and what were you thinking and feeling? Also, please say a word or two about why you think this particular moment was so bad and what the scene may say about you or your life.

3. Turning Point

In looking back over your life, it may be possible to identify certain key moments that stand out as turning points -- episodes that marked an important change in you or your life story. Please identify a particular episode in your life story that you now see as a turning point in your life. If you cannot identify a key turning point that stands out clearly, please describe some event in your life wherein you went through an important change of some kind. Again, for this event please describe what happened, where and when, who was involved, and what you were thinking and feeling. Also, please say a word or two about what you think this event says about you as a person or about your life.

4. Positive Childhood Memory

The fourth scene is an early memory – from childhood or your teen-aged years – that stands out as especially positive in some way. This would be a very positive, happy memory from your early years. Please describe this good memory in detail. What happened, where and when, who was involved, and what were you thinking and feeling? Also, what does this memory say about you or about your life?

5. Negative Childhood Memory

The fifth scene is an early memory – from childhood or your teen-aged years – that stands out as especially negative in some way. This would be a very negative, unhappy memory from your early years, perhaps entailing sadness, fear, or some other very negative emotional experience. Please describe this bad memory in detail. What happened, where and when, who was involved, and what were you thinking and feeling? Also, what does this memory say about you or your life?

6. Episode of Continuity

The sixth scene is a memory that displays something about the self that remains constant and stable. This could be from any time in your life. Please describe this scene in detail, tell what happened, when and where, who was involved, and what you were thinking and feeling. Also, what does this memory say about you or your life?

7. Morality Scene

Please describe an event in your life in which you faced a moral dilemma. What happened, where and when, who was involved, and what were you thinking and feeling? Also, what does this memory say about you and your life?

8. Religious, Spiritual, or Mystical Experience

Whether they are religious or not, many people report that they have had experiences in their lives where they felt a sense of the transcendent or sacred, a sense of God or some almighty or ultimate force, or a feeling of oneness with nature, the world, or the universe. Thinking back on your entire life, please identify an episode or moment in which you felt something like this. This might be an experience that occurred within the context of your own religious tradition, if you have one, or it may be a spiritual or mystical experience of any kind. Please describe this transcendent experience in detail. What happened, where and when, who was involved, and what were you thinking and feeling? Also, what does this memory say about you or your life?

9. Decision-Making Scene

Please describe an event in your life in which you made an important life decision. Be sure to describe your process to making this decision. What happened, where and when, who was

involved, and what were you thinking and feeling? Also, what does this memory say about you and your life?

10. Goal Scene

Please describe an event in your life that was connected to a goal that you have set for the future. What happened, where and when, who was involved, and what were you thinking and feeling? Also, what does this memory say about you and your life?

Appendix B

Santa Clara Scale of Religious Faith Questionnaire (Plante & Boccaccini, 1997)

Please answer the following questions about religious faith using the scale below. Indicate the level of agreement (or disagreement) for each statement. 1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree.

- 1) My religious faith is extremely important to me.
- 2) I pray daily.
- 3) I look to my faith as a source of inspiration.
- 4) I look to my faith as providing meaning and purpose in my life.
- 5) I consider myself active in my faith or church.
- 6) My faith is an important part of who I am as a person.
- 7) My relationship with God is extremely important to me.
- 8) I enjoy being around others who share my faith.
- 9) I look to my faith as a source of comfort.
- 10) My faith impacts many of my decisions.

Appendix C

Christian Conservatism Scale and the Christian Liberalism Scale (Stellway, 1973)

The items below should be preceded by standard questionnaire instructions. Subjects respond to each statement using the following response options: 1 = strongly disagree, 2 = disagree, 3 = neutral or no opinion, 4 = agree, 5 = strongly agree.

- 1) All Biblical miracles happened just as the Bible says they did.
- 2) A person must seek God's forgiveness to enjoy fellowship with God.
- 3) Jesus was more than a great prophet; he was God's only son.
- *4) Biblical miracles did not happen as the Bible says they did but have been used as examples.
- 5) If they stay true to God, people who suffer in this life are sure to be rewarded in the next.
- 6) Religious truth is higher than any other form of truth.
- 7) The Bible is God's message to man and all that it says is true.
- **8) Science and religion are both equally good ways to find truth.
- 9) Biblical miracles did not happen as the Bible says they did but have been used as examples.
- 10) "God" and "Nature" are in some ways the same thing.
- 11) It is more important that we believe that Jesus was a great prophet than that he was God's only son.
- 12) Some Biblical miracles really happened as the Bible says they did but others can be explained by natural causes.
- 13) If a man does good for others, he will enjoy fellowship with God.

* Reverse-scored item

**Items 1-7 are the Christian Conservatism Scale and items 8-13 are the Christian Liberalism Scale.

Appendix D

Satisfaction with Life Scale (Diener et al., 1985)

Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding. (7 = Strongly agree, 6 = Agree, 5 = Slightly agree, 4 = Neither agree nor disagree, 3 = Slightly disagree, 2 = Disagree, 1 = Strongly disagree).

- 1) In most ways my life is close to my ideal.
- 2) The conditions of my life are excellent.
- 3) I am satisfied with my life.
- 4) So far I have gotten the important things I want in life.
- 5) If I could live my life over, I would change almost nothing.

Appendix E

Ryff's Scales of Psychological Well-Being Questionnaire (Ryff, 1989)

The following set of questions deals with how you feel about yourself and your life. Please remember that there are no right or wrong answers. 1 = Strongly Disagree, 2 = Disagree Somewhat, 3 = Disagree Slightly, 4 = Agree Slightly, 5 = Agree Somewhat, 6 = Agree Strongly. (Italicization indicates reverse-scored item.)

AUTONOMY

- 1) I am not afraid to voice my opinions, even when they are in opposition to the opinions of most people.
- 2) My decisions are not usually influenced by what everyone else is doing.
- 3) *I tend to worry about what other people think of me.*
- 4) Being happy with myself is more important to me than having others approve of me.
- 5) *I tend to be influenced by people with strong opinions.*
- 6) I have confidence in my opinions, even if they are contrary to the general consensus.
- 7) It's difficult for me to voice my own opinions on controversial matters.
- 8) *I often change my mind about decisions if my friends or family disagree.*
- 9) I judge myself by what I think is important, not by the values of what others think is important.

ENVIRONMENTAL MASTERY

- 10) In general, I feel I am in charge of the situation in which I live.
- 11) *The demands of everyday life often get me down.*
- 12) *I do not fit very well with the people and the community around me.*
- 13) I am quite good at managing the many responsibilities of my daily life.
- 14) *I often feel overwhelmed by my responsibilities.*
- 15) I generally do a good job of taking care of my personal finances and affairs.
- 16) I am good at juggling my time so that I can fit everything in that needs to get done.
- 17) *I have difficulty arranging my life in a way that is satisfying to me.*
- 18) I have been able to build a home and a lifestyle for myself that is much to my liking.

PERSONAL GROWTH

- 19) *I am not interested in activities that will expand my horizons.*
- 20) *I don't want to try new ways of doing things--my life is fine the way it is.*
- 21) I think it is important to have new experiences that challenge how you think about yourself and the world.
- 22) *When I think about it, I haven't really improved much as a person over the years.*
- 23) I have the sense that I have developed a lot as a person over time.

24) *I do not enjoy being in new situations that require me to change my old familiar ways of doing things.*

25) For me, life has been a continuous process of learning, changing, and growth.

26) *I gave up trying to make big improvements or changes in my life a long time ago.*

27) *There is truth to the saying you can't teach an old dog new tricks.*

POSITIVE RELATIONS WITH OTHERS

28) Most people see me as loving and affectionate.

29) *Maintaining close relationships has been difficult and frustrating for me*

30) *I often feel lonely because I have few close friends with whom to share my concerns.*

31) I enjoy personal and mutual conversations with family members or friends.

32) *I don't have many people who want to listen when I need to talk.*

33) *It seems to me that most other people have more friends than I do.*

34) People would describe me as a giving person, willing to share my time with others.

35) *I have not experienced many warm and trusting relationships with others.*

36) I know that I can trust my friends, and they know they can trust me.

PURPOSE IN LIFE

37) *I live life one day at a time and don't really think about the future.*

38) *I tend to focus on the present, because the future nearly always brings me problems.*

39) *My daily activities often seem trivial and unimportant to me.*

40) *I don't have a good sense of what it is I'm trying to accomplish in life.*

41) *I used to set goals for myself, but that now seems like a waste of time.*

42) I enjoy making plans for the future and working to make them a reality.

43) I am an active person in carrying out the plans I set for myself.

44) Some people wander aimlessly through life, but I am not one of them.

45) *I sometimes feel as if I've done all there is to do in life.*

SELF-ACCEPTANCE

46) When I look at the story of my life, I am pleased with how things have turned out.

47) In general, I feel confident and positive about myself.

48) *I feel like many of the people I know have gotten more out of life than I have.*

49) I like most aspects of my personality.

50) I made some mistakes in the past, but I feel that all in all everything has worked out for the best.

51) *In many ways, I feel disappointed about my achievements in life.*

52) *My attitude about myself is probably not as positive as most people feel about themselves.*

53) The past had its ups and downs, but in general, I wouldn't want to change it.

54) When I compare myself to friends and acquaintances, it makes me feel good about who I am.

Author's Biography

Kyle Walden grew up in the Dallas suburb of Allen, TX. He began attending the University of Texas at Austin in 2013 to study Plan II Honors and Psychology. During his time at the University, Kyle was an active member of the Texas Wesley Foundation by leading and participating in small groups, leading worship, and running a group to discuss and learn about important social justice issues. In the spring of 2016, Kyle attended the Universidad de Santiago in Santaigo, Chile, where he discovered his calling to serve people in the United States. Kyle was also an active musician during his time at the University, playing and creating music with his twin brother Connor, and even performing at the Texas Revue his freshman year.

Kyle graduated in May 2017 with a Bachelor of Arts in Plan II Honors and Psychology. Still discerning a call to vocational ministry, this summer Kyle will go on a mission trip to Juárez, México; go to a family reunion in Los Angeles; take a trip to Europe; and work at First Church in Dallas. Being led by his passion for social justice and service, Kyle plans to work with College Forward in Austin beginning in the fall to be a College Completion Coach and support first-generation college students in helping them to adjust to and succeed in college.